

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (previously presented) A disc implant, comprising:  
a pair of end plates for affixation to adjacent vertebral bodies; and  
a pair of bearing components formed respectively on said end plates and respectively defining a pair of elongated-bearing surfaces each having a generally part-circular cross sectional shape and at least one of said bearing surfaces being further defined by laterally spaced-apart, offset radii to include a generally flattened base segment interposed between a pair of curved sides, said bearing surfaces extending generally on orthogonal axes relative to each other.

2. (previously presented) The disc implant of claim 1 wherein one of said bearing surfaces extends generally in an anterior-posterior direction, and the other of said bearing surfaces extends generally in a medial-lateral direction.

3. (previously presented) The disc implant of claim 1 wherein each of said bearing surfaces has a cross sectional shape defined by laterally spaced-apart, offset radii to include a generally flattened base segment interposed between a pair of curved sides.

4. - 6. Canceled.

7. (previously presented) The disc implant of claim 1 wherein said bearing surfaces each have an elongated shape defining opposite end segments of generally convex shape separated by a central segment defining a generally concave bearing seat, wherein at least one of said bearing seats has said cross sectional shape defined by laterally spaced-

apart, offset radii to include a generally flattened base segment interposed between a pair of curved sides.

8. (previously presented) The disc implant of claim 7 wherein said generally concave bearing seat of each of said bearing surfaces has a cross sectional shape defined by offset radii to include a generally flattened base segment interposed between a pair of curved sides.

9. (previously presented) The disc implant of claim 7 wherein said opposite end segments of each of said bearing surfaces has a convex shape formed with increasing diametric size in a direction toward the associated central segment defining said concave bearing seat.

10. (original) The disc implant of claim 1 wherein each of said end plates includes a lordotic taper.

11. (original) The disc implant of claim 1 wherein at least one of said end plates has a tapered thickness increasing in a posterior to anterior direction.

12. (original) The disc implant of claim 1 wherein each of said end plates includes means for affixation to adjacent vertebral bodies.

13. (original) The disc implant of claim 1 wherein each of said end plates includes a porous bone ingrowth surface for affixation to adjacent vertebral bodies.

14. (original) The disc implant of claim 13 wherein said porous bone ingrowth surface of each of said end plates has a generally convex shape for engagement with and affixation to adjacent vertebral bodies.

15. (original) The disc implant of claim 1 wherein each of said end plates includes at least one generally axially protruding fixation element for affixation to adjacent vertebral bodies.

16. (previously presented) The disc implant of claim 1 wherein said pair of bearing surfaces respectively comprise a ceramic material and a biocompatible metal.

17. - 41. Canceled.

42. (previously presented) A disc implant, comprising:  
a pair of end plates for affixation to adjacent vertebral bodies; and  
a pair of bearing components formed respectively on said end plates and respectively defining a pair of elongated bearing surfaces extending generally on orthogonal axes relative to each other;

each of said bearing surfaces defining opposite end segments of generally convex part-circular cross sectional shape separated by a central segment defining a generally concave bearing seat, and at least one of said bearing seats being further defined by a generally part-circular cross sectional shape defined by laterally spaced-apart offset radii to include a generally flattened base segment interposed between a pair of curved sides.

43. (previously presented) The disc implant of claim 42 wherein said generally concave bearing seat of each of said bearing surfaces has a cross sectional shape defined by offset radii to include a generally flattened base segment interposed between a pair of curved sides.

44. (previously presented) The disc implant of claim 42 wherein said opposite end segments of each of said bearing surfaces has a convex shape formed with increasing diametric size in a direction toward the associated central segment defining said concave bearing seat.

45. (original) The disc implant of claim 42 wherein one of said bearing surfaces extends generally in an anterior-posterior direction, and the other of said bearing surfaces extends generally in a medial-lateral direction.

46. (original) The disc implant of claim 42 wherein each of said end plates includes a lordotic taper.

47. (original) The disc implant of claim 42 wherein at least one of said end plates has a tapered thickness increasing in a posterior to anterior direction.

48. (original) The disc implant of claim 42 wherein each of said end plates includes means for affixation to adjacent vertebral bodies.

49. (original) The disc implant of claim 42 wherein each of said end plates includes a porous bone ingrowth surface for affixation to adjacent vertebral bodies.

50. (original) The disc implant of claim 49 wherein said porous bone ingrowth surface of each of said end plates has a generally convex shape for engagement with and affixation to adjacent vertebral bodies.

51. (original) The disc implant of claim 42 wherein each of said end plates includes at least one generally axially protruding fixation element for affixation to adjacent vertebral bodies.

52. (currently amended) The disc implant of claim 42 wherein said ~~part-cylindrical~~ bearing surfaces comprise a ceramic material.

53. (previously presented) The disc implant of claim 42 wherein said pair of bearing surfaces respectively comprise a ceramic material and a biocompatible metal.